

What is claimed is:

1. An antibody which immunologically reacts with an IL 22 protein.
- 5 2. The antibody of claim 1, wherein said antibody is a neutralizing antibody.
3. The antibody of claim 1, wherein the antibody is a monoclonal antibody.
4. The antibody of claim 3, wherein the monoclonal is a human monoclonal
10 antibody.
5. The antibody of claim 3, wherein the monoclonal antibody is a humanized
monoclonal antibody.
- 15 6. The antibody of claim 1, wherein said antibody binds specifically to a
polypeptide comprising the amino acid sequence of SEQ ID NO:2.
7. A pharmaceutical composition comprising an IL-22 antibody which
immunologically reacts with an IL 22 protein comprising the amino acid sequence of
20 SEQ ID NO:2 and a pharmaceutical carrier.
8. The pharmaceutical composition of claim 7, wherein said antibody is a
neutralizing antibody.
- 25 9. The pharmaceutical composition of claim 7, wherein the antibody is a
monoclonal antibody.
10. A method of treating a pathological condition in a subject associated with
IL-22 activity comprising administering an effective amount of an agent that inhibits
30 levels of IL-22 activity, thereby treating said pathological condition.

11. The method of claim 10, wherein said pathological condition is selected from the group consisting of septicemia, autoimmune disorders and the regulation of inflammation and acute phase responses.

5 12. The method of claim 10, wherein said autoimmune disorders is selected from the group consisting of rheumatoid arthritis, osteoarthritis, multiple sclerosis, myasthenia gravis, inflammatory bowel disease, lupus, diabetes and psoriasis.

10 13. The method of claim 11, wherein said regulation of inflammation and acute phase responses is selected from the group consisting of wound healing processes, cholesterol metabolism, oxygen free radical injury, ischemia, atherosclerosis and allergies.

15 14. The method of claim 12, wherein said agent is a neutralizing IL-22 antibody.

15 15. The method of claim 12, wherein said agent is a small molecule.

15 16. The method of claim 14, wherein said subject is a human.

20 17. A method of treating symptoms associated with arthritis, said method comprising administering to a subject in need thereof a therapeutically effective amount of an IL-22 antibody.

25 18. The method of claim 17, wherein said arthritis is rheumatoid arthritis.

25 19. The method of claim 17, wherein said IL-22 antibody is administered therapeutically.

30 20. The method of claim 17, wherein said IL-22 antibody is administered prophylactically.

21. A method of enhancing a subject's immune response to an antigen, comprising the steps of administering to said subject an immunogenic amount of said

antigen and an immunogenicity-augmenting amount of IL-22 in concurrent or sequential combination with said antigen such that said subject's immune response is enhanced.

5 22. The method of claim 21, wherein said subject is a human.

 23. The method of claim 21, wherein said administration of IL-22 is concurrent.

 24. A method of treating a pathological condition in a subject in need of IL-
10 22 modulation, comprising administering an effective amount of an agent that modulates IL-22 activity, such that the pathological condition in said subject is treated.

 25. The method of claim 24, wherein said pathological condition is an infectious disease state.

15 26. The method of claim 25, wherein said infectious disease state is initiated by an organism selected from the group consisting of bacteria, viruses, parasites and fungi.

20 27. A method of treating inflammatory pathology in the kidney of a subject comprising administering an effective amount of an agent that modulates IL-22 activity, such that said inflammatory pathology of said subject is treated.

 28. The method of claim 27, wherein said inflammatory pathology is a result
25 of necrosis due to ischemia.

 29. A method of treating cancer in a subject comprising administering an effective amount of an agent that modulates IL-22 activity, such that cancer is treated.

30 30. The method of claim 29, wherein said cancer is renal cell carcinoma.

31. A method of remodeling kidney tissue comprising administering an effective amount of an agent that modulates IL-22 activity such that remodeling of kidney tissue occurs.

5 32. The method of claim 31, wherein said remodeling is performed *ex vivo*.

33. The method of claim 31, wherein said remodeling is performed *in vivo*.

10

SECRET